



(1) GENERAL INFORMATION  
(i) APPLICANT: Seidons, Michael  
Gach, David

(ii) TITLE OF INVENTION: Method for PR-39 peptide regulated stimulation of angiogenesis  
(iii) NUMBER OF SEQUENCES: 14  
(iv) CORRESPONDENCE ADDRESS:  
(A) ADDRESSEE: David Prashker, Esq.  
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(C) CITY: Magnolia  
(D) STATE: Massachusetts  
(E) COUNTRY: USA  
(F) ZIP: 01930

(v) COMPUTER READABLE FORM:  
(A) MEDIUM TYPE: Diskette, 3.50 inch, 1.40 Mb storage  
(B) COMPUTER: IBM PS/1  
(C) OPERATING SYSTEM: MS DOS  
(D) SOFTWARE: WordPerfect version 5.1

(vi) CURRENT APPLICATION DATA:  
(A) APPLICATION NUMBER: 09/276,868  
(B) FILING DATE: March 26, 1999  
(C) CLASSIFICATION: Unknown

(viii) ATTORNEY/AGENT INFORMATION:  
(A) NAME: David Prashker, Esq.  
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(C) REFERENCE/DOCKET NUMBER: BIS-043  
(ix) TELECOMMUNICATION INFORMATION:  
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(2) INFORMATION FOR SEQ ID NO:1:  
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro  
1 5 10 15  
Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro  
20 25 30  
Arg Phe Pro Pro Arg Phe Pro  
35

(2) INFORMATION FOR SEQ ID NO:2:  
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro  
1 5 10 15  
Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro  
20 25 30  
Arg Phe Pro Pro Arg Phe Pro  
35

(2) INFORMATION FOR SEQ ID NO:3:  
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids  
(B) TYPE: amino acid

- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro  
 1 5 10 15

- (2) INFORMATION FOR SEQ ID NO:4:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 11 amino acids
    - (B) TYPE: amino acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg  
 1 5 10

- (2) INFORMATION FOR SEQ ID NO:5:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 8 amino acids
    - (B) TYPE: amino acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Arg Arg Arg Pro Arg Pro Pro Tyr  
 1 5

- (2) INFORMATION FOR SEQ ID NO:6:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 39 amino acids
    - (B) TYPE: amino acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro  
 1 5 10 15  
 Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro  
 20 25 30  
 Arg Phe Pro Pro Arg Phe Pro  
 35

- (2) INFORMATION FOR SEQ ID NO:7:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 11 amino acids
    - (B) TYPE: amino acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg  
 1 5 10

- (2) INFORMATION FOR SEQ ID NO:8:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 255 amino acids
    - (B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Ser | Ile | Gly | Thr | Gly | Tyr | Asp | Leu | Ser | Ala | Ser | Thr | Phe | Ser |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Pro | Asp | Gly | Arg | Val | Phe | Gln | Val | Glu | Tyr | Ala | Met | Lys | Ala | Val | Glu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Asn | Ser | Ser | Thr | Ala | Ile | Gly | Ile | Arg | Cys | Lys | Asp | Gly | Val | Val | Phe |
|     |     | 35  |     |     |     | 40  |     |     |     |     | 45  |     |     |     |     |
| Gly | Val | Glu | Lys | Leu | Val | Leu | Ser | Lys | Leu | Tyr | Glu | Glu | Gly | Ser | Asn |
|     | 50  |     |     |     |     | 55  |     |     |     | 60  |     |     |     |     |     |
| Lys | Arg | Leu | Phe | Asn | Val | Asp | Arg | His | Val | Gly | Met | Ala | Val | Ala | Gly |
| 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     |     | 80  |
| Leu | Leu | Ala | Asp | Ala | Arg | Ser | Leu | Ala | Asp | Ile | Ala | Arg | Glu | Glu | Ala |
|     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |     |
| Ser | Asn | Phe | Arg | Ser | Asn | Phe | Gly | Tyr | Asn | Ile | Pro | Leu | Lys | His | Leu |
|     |     | 100 |     |     |     |     | 105 |     |     |     |     |     | 110 |     |     |
| Ala | Asp | Arg | Val | Ala | Met | Tyr | Val | His | Ala | Tyr | Thr | Leu | Tyr | Ser | Ala |
|     |     | 115 |     |     |     | 120 |     |     |     |     |     | 125 |     |     |     |
| Val | Arg | Pro | Phe | Gly | Cys | Ser | Phe | Met | Leu | Gly | Ser | Tyr | Ser | Ala | Asn |
|     | 130 |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |     |
| Asp | Gly | Ala | Gln | Leu | Tyr | Met | Ile | Asp | Met | Ser | Gly | Val | Ser | Tyr | Gly |
| 145 |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     |     | 160 |
| Tyr | Trp | Gly | Cys | Ala | Ile | Gly | Lys | Ala | Arg | Gln | Ala | Ala | Lys | Thr | Glu |
|     |     |     | 165 |     |     |     |     | 170 |     |     |     |     |     | 175 |     |
| Ile | Glu | Lys | Leu | Gln | Met | Lys | Glu | Met | Thr | Cys | Arg | Asp | Val | Val | Lys |
|     |     | 180 |     |     |     |     | 185 |     |     |     |     |     | 190 |     |     |
| Glu | Val | Ala | Lys | Ile | Ile | Tyr | Ile | Val | His | Asp | Glu | Val | Lys | Asp | Lys |
|     | 195 |     |     |     |     | 200 |     |     |     |     |     | 205 |     |     |     |
| Ala | Phe | Glu | Leu | Glu | Leu | Ser | Trp | Val | Gly | Glu | Leu | Thr | Lys | Gly | Arg |
|     | 210 |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |     |
| His | Glu | Ile | Val | Pro | Lys | Asp | Ile | Arg | Glu | Glu | Ala | Glu | Lys | Tyr | Ala |
| 225 |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     |     | 240 |
| Lys | Glu | Ser | Leu | Lys | Glu | Glu | Asp | Glu | Ser | Asp | Asp | Asp | Asn | Met |     |
|     |     |     | 245 |     |     |     |     | 250 |     |     |     |     |     | 255 |     |

(2) INFORMATION FOR SEQ ID NO:9:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Ala Glu Arg Asp

1

(2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1 amino acid

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Ala

1

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Lys Lys His Glu Glu Glu Ala Lys Ala Glu Arg Glu Lys Lys Glu  
1 5 10 15  
Lys Glu Gln Lys Lys Asp Lys  
20

(2) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Glu Lys Glu Lys Glu Glu Asn Glu Lys Lys Lys Gln Lys Lys Ala Ser  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

Glu Glu Arg Pro Gln Arg Lys Ala Gln Pro Ala Gln Pro Ala Asp Glu  
1 5 10 15  
Pro Ala Glu Lys Ala Asp Glu Pro Met Glu His  
20 25

(2) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Ala Lys Glu Ser Leu Lys Glu Glu Asp Glu Ser Asp Asp Asp Asn Met  
1 5 10 15